ABSTRACT

Title: The relationship between the occurrence of a trigger point in the soleus muscle and the functional impairment of the SI joint and the possibility of their mutual influence.

Objectives/Aims: The aim is to write a summarization of facts based on a literature research on the complex problem of the trigger point phenomenon with a regard to their etiology and work out a pilot study to verify the relationship between the TrP and stiffness in soleus muscle and the functional impairment of the SI joint in terms of reduced joint play in the ipsilateral lower extremity. The experiment, based on objective results, is to answer the fundamental questions of whether patients with functional impairment of the SI joint leads to the formation of a TrP in the soleus muscle on the ipsilateral limb, whether the eventual dry needle therapy of a TrP in the soleus muscle will remove the malfunction of the ipsilateral SI joint, and vice versa, whether if by restoring joint play in the SI joint by mobilization therapy will have an effect on the muscle tone of the ipsilateral soleus muscle and remove the TRP.

Methods: The incidence of TrP and the level of muscle tone was tested on 8 persons with functional impairment of the SI joint. Two even groups were formed. The first group had both a TrP in the soleus muscle and a functional impairment of the SI joint, in the experiment dry needling was used to remedy the TrP and afterwards joint play was tested. The second group with functional impairment of the SI joint undertook mobilization therapy of the SI joint and muscle tone in the soleus muscle on the ipsilateral limb was tested. Functional impairment of the SI joint and the TrP in the soleus muscle were assessed on the basis of a kinesiological examination. Muscle tone in the soleus muscle was tested by the use of a myotonometer.

Results: The experiment demonstrated the relationship between the functional impairment of the SI joint and the TrP in the soleus muscle on the ipsilateral lower extremity. Further, it showed that a TrP in the soleus muscle can be removed with the help of a dry needle and that when removed the joint play in the ipsilateral SI joint is restored, and vice versa, that the restoration of joint play in the SI joint via mobilization can influence the tone of ipsilateral soleus muscle and also remove the TrP.

Key words: hypertonus, dry needling, joint play, mobilization